- (Currently Amended) A method of identifying one or more nucleic acid sequences useful as a biomarker for a disease to be detected, comprising:
- (a) identifying one or more nucleic acid sequences that are down-regulated in a diseased eells cell compared to normal cells a control cell, wherein the nucleic acid sequences comprise at least one methylated CpG site in a promoter-first exon region;
- (b) comparing an expression level of the nucleic acid sequences from (a) with an expression level of the nucleic acid sequences from (a) that have been demethylated; and
- (c) identifying those nucleic acid sequences exhibiting a significant increase in the expression level after demethylation treatment as compared to the expression level of the same nucleic acid sequences in the methylated state; wherein those nucleic acid sequences exhibiting a significant increase in the expression level after demethylation treatment are useful as a biomarker for a disease to be detected and wherein the disease is cancer.
- (Canceled)
- The method of claim 1, wherein the promoter-first exon region spans about 1000 base pairs upstream of the first exon and about 1000 base pairs downstream of the first exon.
- 4. 27. (Canceled)
- (New) The method of claim 1 wherein the diseased cell comprises a cell from colon and/or rectal tissue.
- 29. (New) The method of claim 28 wherein the one or more nucleic acid sequences that are down-regulated in a diseased cell are down-regulated at least about 2 fold, at least about 5 fold, at least about 20 fold, or at least about 50 fold as compared to the control cell.
- 30. (New) The method of claim 29 wherein the disease is colon or colorectal cancer.